# **ELECTRICAL SPECIFICATIONS**

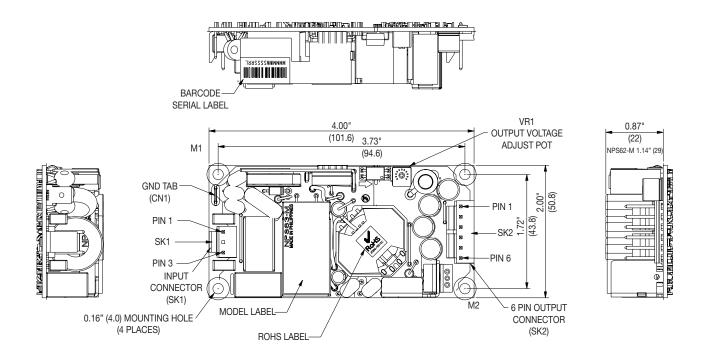
Input		
Input range	90 - 264 Vac (wide range) 127-300 Vdc	
Frequency	47 - 63 / 440 Hz (Safety rating 50/60 Hz)	
Inrush current	< 50 A peak @ 230 Vac, cold start @ 25° C	
Input power	< 74 Watts	
Efficiency	87% average (as per Energy Star 2.0 standard) (NPS62-M, 80%)	
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted, VDE0878PT3 Class B conducted	
Safety ground leakage current	275 μA @ 50/60 Hz; 264 Vac input	
Output		
Maximum power	60 W for convection	
Adjustment range	± 20% minimum	
Hold-up time	13/75 ms 115/230 Vac input line	
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-160% of normal rating	
Overvoltage protection	30-50% above nominal output	
Remote sense	Compensated for 0.5 V lead drop max. Will operate without remote sense connected. Reverse connection protected.	

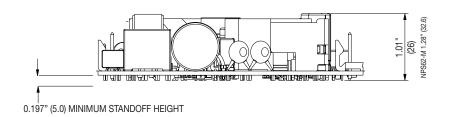
# **ENVIRONMENTAL SPECIFICATIONS**

Operating temperature	0 ° to 50 °C ambient derate each output at 2.5% per degree from 50 ° to 80 °C20 °C start up	
Storage temperature	-45 °C to +85 °C	
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3	
Humidity	Operating; non-condensing 10% to 90% RH	
Vibration	IEC68-2-6 to the levels of IEC721-3-2	
MTBF demonstrated	> 550,000 hours at full load and 25 °C ambient conditions	



# **MECHANICAL DRAWING**





# **ORDERING INFORMATION**

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Peak Load¹	Regulation <sup>2</sup>	Ripple P/P (PARD) <sup>3</sup>
NPS62-M	5 V	0 A	11 A	13 A	± 2%	50 mV
NPS63-M	12 V	0 A	5 A	5.5 A	± 2%	120 mV
NPS63-M-006 <sup>4</sup>	12 V	0 A	5 A	5.5 A	± 2%	120 mV
NPS64-M	15 V	0 A	4 A	4.4 A	± 2%	150 mV
NPS65-M	24 V	0 A	2.5 A	2.75 A	± 2%	240 mV

- 1. Peak current lasting <15 seconds with a maximum 10% duty cycle.
- 2. At 25 °C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
- $3. \ Peak-to-peak \ with 20 \ MHz \ bandwidth \ and \ 10 \ \mu F \ (tantalum \ capacitor) \ in \ parallel \ with \ a \ 0.1 \ \mu F \ capacitor \ at \ rated \ line \ voltage \ and \ load \ ranges.$
- 4. Compliant to Level VI efficiency.
- 5. This product is a Component Power Supply and is only for inclusion by professional installers within other equipment and must not be operated as a standalone product. EMC compliance to appropriate standards must be verified at the system level. This product is for sale to OEMs and System Integrators, including through Distribution Channels. It is not intended for sale to End Users.

### **PIN ASSIGNMENTS**

Connector	NPS62-M	NPS63-M	NPS64-M	NPS65-M
SK1-1	Line	Line	Line	Line
SK1-3	Neutral	Neutral	Neutral	Neutral
CN1	Ground	Ground	Ground	Ground
SK2-1	+5 V	+12 V	+15V	+24 V
SK2-2	+5 V	+12 V	+15V	+24 V
SK2-3	Common	Common	Common	Common
SK2-4	Common	Common	Common	Common
SK2-5	-Sense	-Sense	-Sense	-Sense
SK2-6	+Sense	+Sense	+Sense	+Sense

# **MATING CONNECTORS**

AC Input	Molex 09-50-8031 (USA) 09-93-0300 (UK) PINS: 08-52-0113	
DC Outputs	Molex 09-50-8061 (USA) 09-93-0600 (UK) PINS: 08-52-0113	
Artesyn Embedded Power Connector Kit #70-841-006 includes all of the above.		

#### Notes:

- Specifications subject to change without notice.
- 2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5 mm)
- 3. Mounting holes M1 and M2 should be grounded for EMI purposes.
- 4. Mounting hole M1 is safety ground connection.
- 5. Specifications are for convection rating at factory settings at 115 Vac input, 25 °C unless otherwise stated.
- $^{\circ}$  6. For DC input an external DC safety rated fuse must be used
- 7. Warranty: 2 year
- 8. Weight: 0.26 lbs/0.118 kg





### **ABOUT ADVANCED ENERGY**

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

# PRECISION | POWER | PERFORMANCE

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